Designing a Capitol for Alaska

Strengthening the Fabric of Juneau

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1. The Design Balance
   Representing the State of Alaska

2. The Natural Environment
   A City on three edges…
   Mountains, Water, Forest
   Climate…
   Rain, Winter, Sun, Dark & Light

3. The Built Environment
   A Livable City
   Historic Forms
   Industry & Education
   A Cultural Mix

4. An Urban Site
   Downtown Juneau
   Juneau’s Sky Scrapers
   The Site: Telephone Hill
   Streetscapes
   Views

5. Credits and References
1. The Design Balance

Alaska’s Capitol must represent all of Alaska AND fit into the natural and built environments of Juneau.

The Vision Statement of the Capitol Planning Commission:

*Alaska’s new Capitol will be prominent, enduring, memorable, and dignified.*

*It will convey democratic values, instilling in all Alaskans a sense of civic pride and inspiring confidence and respect for the democratic institutions housed within it.*

*It will be designed for the ages: a lasting cultural achievement, at once ceremonial, accessible, and functional.*

There is another important design requirement not to be overlooked: The Capitol must work well within, and ultimately strengthen the existing fabric of Juneau, Alaska’s Capital City. This presentation is intended to introduce the Capitol Design Competition participants and interested citizens to Juneau and some of the factors to be considered when designing a building for this city and community. It is not a comprehensive site analysis, but a general look at Juneau’s historic and existing context with an eye to pointing out features that might otherwise escape those not intimately aware of Juneau’s character.
2. Natural Environment

Edge One:
At the mountain’s feet...

Juneau is a city built along the bases of several mountains in the Coast Mountain Range. Downtown Juneau itself, the site of the new capitol, is bounded by Mt. Roberts to the east and Mt. Juneau to the north (shown on this slide). The mountains of Douglas Island are across Gastineau Channel to the west. These mountains are ever-present in the experience of Juneauites and visitors alike. They are not only beautiful, but also crucial in creating Juneau’s unique microclimate.

When studying and photographing buildings in downtown Juneau, the mountains always pull the eye and the camera upwards. The buildings may focus the attention, but the mountains dominate. Downtown Juneau reaps the benefits of its enclosing mountains, while living with the effects of their major presence. For example, in the summer there are parts of downtown that experience a double sunrise as the sun passes the mountain range on its way up, while in the winter the mountains hide the sun for much of the day, placing Juneau in shadow even on a clear day. The ways in which the sun, wind, clouds, and fog are effected by and interact with the mountains create an ever-changing environment for those living in Juneau.
There are very practical results of building at the base of a mountain: mountainside construction techniques, and lots of stairs. Several Juneau streets stop at the base of a mountain and continue upwards as stairs. Buildings are built into slopes, step up them in stages, or both. Retaining walls of all kinds hold the earth back to create stable building platforms, and to keep slopes secure. Layers of buildings - commercial, institutional, and residential - move up the mountainside. Several streets are hard to climb as winter comes on, making a few areas inaccessible except by foot.
Juneauites and visitors alike take many opportunities to enter the mountains, not content to remain on their edges. Our mountains are an unending source of recreation, exploration, and inspiration. A vast ice field spills down into Juneau in several locations, creating glaciers that are accessible to anyone and visible as a part of daily life. The Mt. Roberts tram and helicopter companies allow tourists and hikers incredible views and access to and from the tops of the mountains. On Douglas Island, the City-owned Eaglecrest ski area is an important part of many Juneauites' winter life. The wildlife of the mountains also visit Juneau in return… bear-proof garbage cans are a necessity, though one is more likely to have to give way to a porcupine.
The Inside Passage brought gold seekers and gold town entrepreneurs to Southeast Alaska. The Gastineau Channel, Juneau’s arm of the Inside Passage, now brings fleets of cruise ships and tens of thousands of tourists to Juneau each year. Juneau’s economy has depended on the waters of the Inside Passage since its founding. Fishing, mining, timber, tourism, and transportation all rely on the waters around Juneau.
Natural Environment

There is very little developable space between the water and the mountains. As in many Southeast Alaska communities, the shoreline is not a hindrance to development as much as it is a viable location for the expansion of developable “land.” Some areas of downtown Juneau have been filled to expand this space, but the main expansion method has been pilings and platforms reaching out over the tide zone. Juneau experiences tides of over 25 feet. Because of this, our waterfront structures, with their forests of pilings, make a distinct and dramatic waterfront edge.

Edge Two: Water…
Juneauites who don’t leave shore on a regular basis are few. Sail, power, and fishing boats, kayaks, float planes, and Extra-Tuff boots are in constant use through weather that others might find inclement but which locals call “liquid sunshine.”
The edge between water and land creates a relationship of both give and take for humans and their built environment. Evocative and iconic forms can be created, but the power of natural forces must always be expected, respected, and even celebrated.
At 17 million acres, the Tongass National Forest is America’s largest National Forest. It is also part of the world’s largest intact, temperate rainforest. Juneau is located near its northern edge. One can walk for only a few minutes from almost any location in Juneau and find themselves under a canopy of trees, with no other people or buildings in sight. Juneau’s abundant rainfall (91” of rainfall a year are average for downtown Juneau) contributes to the growth of very large Sitka spruce and Western hemlock trees. An underbrush of berries, dwarf dogwood, devil’s club, ferns, and mosses make the forests surrounding Juneau an ever changing natural wonderland.
The Tongass is a resource for both materials and design inspiration. Wood is, of course, a common building material, but there are few locations in the world where you can look out a window and be reminded so dramatically of its source.

Forest have inspired architectural form throughout the ages. The natural paths, corridors, alcoves, and cathedrals found in forests inform architectural design in both conceptual and concrete ways.
Climate: Life in the Rain

There is rain in Juneau for 222 days of the year, on average, and for many of the remaining 143, it looks like rain is on the way. If Juneauites didn’t live life in the rain, we’d have no life at all. So we deal with rain in two ways: Shelter and gear. Bus shelters, picnic shelters, covered walkways, covered play areas, deep eaves, and awnings are all important parts of Juneau life, especially in the largely pedestrian downtown area.

Waterproof gear is an essential addition to Juneau wardrobes, from professional to recreational to outdoor work wear. The toe of a brown Extra-Tuff boot under a wedding dress or a bright orange Grunden rain coat over a suit and tie... neither would be out of fashion in Juneau.
There are, as everywhere, ways of protecting structures, the landscape, and people from the rain. Providing routes for drainage behind retaining walls prevents water pressure build-up and controls erosion. Awnings and overhangs not only shelter pedestrians but protect walls, windows, and foundations from excess water. Sloping the ground and its surfaces away from buildings is crucial. Decks serve multiple purposes for both buildings and people by creating level surfaces for use while protecting unstable or sloping ground from both water and use.
Climate: Rain…

The choice of materials and methods is very important in a location with this much rain, especially as the rain is often wind-driven. Many materials do not fare well; Stucco and exterior insulation and finish systems have rarely withstood the Juneau test. Low quality products, especially those that use adhesives as part of their assembly, degrade quickly. Relying on sealants and caulking to keep water out of structures is often not enough, especially for the long term. Exterior envelope details must be carefully considered, as must routes for water to be drained from roofs and all horizontal surfaces exposed to the weather.
Winters are wet in Juneau. The snow-rain-slush-ice-snow cycle repeats itself many times over the course of winter. Because it may be wet, the snow can be very heavy, but does not usually build up on roofs and other surfaces to the extent experienced in more northern Alaskan cities. Ice damming and eave edge icicles are still a concern, though. Entrances must protect users from snow and ice falling from roofs. Roads, stairs, and walkways can be treacherous when covered with ice and a layer of slush, especially when they traverse a mountain side, as many do in Juneau.
Many aspects of Juneau’s natural environment are unique to the area.

**Climate:**

The Sun and Other Weather Phenomena

When the sun comes out in Juneau it is truly an event, a climatological phenomenon not to be missed. Conversations stop, meetings end, and all eyes go to the closest window. City Managers and Governors have been known to declare it a holiday if the sun hasn't been seen in a while. To many, when the sun shines in Juneau, this is the most beautiful place on earth.

Because of the rare sun, as well as the days of fog, or when every type of weather occurs over a few hours, windows are a necessity in Juneau. The weather is a show of its own, and not to be missed. The view down Gastineau Channel from downtown Juneau makes every weather front a dramatic one.
Climate: Dark & Light

At summer solstice, Juneau will get over 18 hours of daylight. At winter solstice, just over 6 hours. Artificial lighting is not only necessary from a practical sense, but it can also be a significant design feature. Lighting for safety and visibility are common, of course, but exterior lighting for dramatic effect has been under-used in Juneau, though common in Alaska's more northern cities. The lights of downtown Juneau are impressive though, when seen from the water, across the channel, or from the air.
3. Built Environment

A Livable City

Downtown Juneau strives to be a livable city. It is possible to live in downtown Juneau and not need a car. When driving is necessary, traffic is typically light and the travel distance relatively easy. The population of Juneau is spread out due the mountains and water, but there is one main road to travel and only a handful of traffic lights along it.

Driving, though, is not the only measure of livability. Services and the availability of goods are adequate year round. Though some of the downtown district closes after the tourist season, there is enough mixed land use, with a large number of residences, to maintain all of the amenities within walking distance.
Juneau is one, possibly the only one, of Alaska’s cities that has not been devastated by earthquake, tsunami, or fire. The historic nature of the downtown commercial and residential districts adds greatly to Juneau’s charm. The repetition of iconic commercial and residential forms has been maintained over the years, due in large part to the efforts of historic commissions and societies. Gold rush structures and other buildings from the early part of the century have survived and continue to influence the architecture of the downtown district.
Several industries and employers have had a lasting effect on Juneau's built environment. Historically, mining developed downtown Juneau, defining the layout of streets, neighborhoods, and the commercial district. The State has built several large buildings and institutions in downtown Juneau in the years since statehood, to house its departments.

Mining, shipping, transportation, and fisheries were the earliest developers of Juneau’s waterfront. It continues as a working waterfront, but international cruise lines and local businesses now vie for most of the downtown waters edge.
Alaska as a whole is a very diverse state. Alaska Natives and Alaska residents of many cultures have learned to live together with respect for one another. Juneau reflects this diversity. With the exception of religious buildings, the bulk of Juneau’s diverse cultural expressions are made through the arts and public celebrations.
4. An Urban Site

Downtown Juneau

The site proposed for the new Capitol is complex due to its downtown location. The site is bounded on two sides by large existing structures and on the remaining sides by important downtown streets. Careful consideration must be given to designing and constructing a building that works well within the existing context, but the fabric of Juneau will, and should, be changed dramatically by the development of this very important building.
Juneau’s large buildings include the State Office Building, the Alaska Office Building, the State Court Building, the Territorial Office Building (the present Capitol), Centennial Hall Convention Center, and some high rise apartment buildings. The new Capitol will stand out in front of all these buildings when viewed from the water and air, and as one drives into the downtown district along Egan Drive.
An Urban Site

Telephone Hill

Telephone Hill was identified as the best location for the Alaska Capitol as long ago as 1958, prior to Statehood. It is a prominent site due both to its location and its landform. This site is visible from all sides, including above. Once built, this Capitol will be viewed and photographed from water, land, air, and even mountaintops on a daily basis throughout the year.

A new building at this location, Capitol or not, would have a major effect on the “skyline,” image, and community development of Juneau.
An Urban Site

Streetscapes

The site is bound on one side by Main Street, an important but relatively undeveloped section of road at the edge of the downtown district. Main Street is commercial and institutional in nature until it passes the existing Capitol Building and becomes residential (and very steep). It is a main route for city busses and cars moving in and out of downtown.

Separating the site from the waterfront is the last leg of Egan Drive. At Main Street, Egan Drive becomes Marine Way as it follows the waterfront and the edge of the downtown district. The intersection at Egan and Main is the main gate into the downtown area. The mix of cars, busses, and pedestrians at this intersection, and up each of the streets, is important to consider.

Separating the site from the Centennial Hall Convention Center is Willoughby Avenue. This street would likely offer vehicular access to the site, though some could occur off of Main Street as well.
An Urban Site

Views from the Site

The view from Telephone Hill is spectacular every day of the year. The Gastineau Channel is expansive and awe-inspiring as the seasons move across it. Although the site is separated from the waterfront by Egan Drive, there is significant potential for developing a visual or direct connection between the site, street, and waterfront.
5. Credits & References

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31. Water’s edge construction, James Bibb, AIA
32. Pier in fog, CBJ, www.juneau.lib.ak.us
33. Aurora Harbor, CBJ, www.juneau.lib.ak.us
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36. Shore landing, James Bibb, AIA
37. An architect’s Extra-Tuffs, James Bibb, AIA
38. Cruise ship dock & library, CBJ, www.juneau.lib.ak.us
39. Water’s edge construction, James Bibb, AIA
40. Float plane dock, Sarah R-P. Lewis, AIA
41. Water’s edge construction, Sarah R-P. Lewis, AIA
47. Path, James Bibb, AIA
48-50. Wood, James Bibb, AIA
51. Sketch by James Bibb, AIA
52. Rainy downtown Juneau, juneauphotos.com
53-57. Downtown Juneau, Sarah R-P. Lewis, AIA
58-63. Materials and methods, Sarah R-P. Lewis, AIA
64. Riverbend School, Catherine Fritz, AIA
66. Cruise ship dock under snow, Rory Watt
67. Icy Road, unknown source
68. University of Alaska Southeast, www.uas.alaska.edu
69. Street-side openings, Sarah R-P. Lewis, AIA
70. Cruise ship in fog, CBJ, www.juneau.lib.ak.us
72. Fog, Sarah R-P. Lewis, AIA
73. Juneau at night, Sean M. Boily, AIA
74. Light, James Bibb, AIA
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76-77. Marine Park, Sarah R-P. Lewis, AIA
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104-106. Notable Buildings, Sarah R-P. Lewis, AIA
107-116. Telephone Hill site, Sarah R-P. Lewis, AIA
117-119. Gastineau Channel Seasons, James Bibb, AIA

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